

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-10 (canceled)

Claim 11 (new): A breaking and splitting structure of a connecting rod comprising:

a large end having a crank pin bore, the large end being broken and split into a rod section and a cap section such that the rod section and the cap section have broken and split surfaces, the rod and cap sections being coupled to each other via fastening bolts such that the broken and split surfaces of the rod section and the cap section are engaged and aligned with each other; wherein

a breakage-starting portion extending in the axial direction of the crank pin bore is formed in an inside circumferential surface of the crank pin bore of the large end, and the axial length of the breakage-starting portion is less than the axial length of the inside circumferential surface.

Claim 12 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein an outer surface of the large end has a hardened surface layer extending to a predetermined depth thereof.

Claim 13 (new): The breaking and splitting structure of a connecting rod according to claim 12, wherein the hardened surface layer is a carburized, hardened and tempered surface.

Claim 14 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein an outer surface of the connecting rod has a hardened surface layer extending to a predetermined depth thereof.

Claim 15 (new): The breaking and splitting structure of a connecting rod according to claim 14, wherein the hardened surface layer is a carburized, hardened and tempered surface.

Claim 16 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein the breakage-starting portion is defined by a groove formed in the crank pin bore.

Claim 17 (new): The breaking and splitting structure of a connecting rod according to claim 16, wherein the groove has a tapered configuration.

Claim 18 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein the breakage-starting portion is defined by a plurality of pores formed in the crank pin bore.

Claim 19 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein the axial length of the breakage-starting portion is substantially equal to or less than a diameter of the crank pin bore.

Claim 20 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein the breakage-starting portion extends from one end of the crank pin bore to a location just short of a middle of the axial length of the crank pin bore.

Claim 21 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein the breakage-starting portion extends along a middle portion of an axial length of the crank pin bore.

Claim 22 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein the large end includes a pair of shoulders and each of the shoulders of the large end includes a bolt hole extending in a direction that is substantially perpendicular to the axis of the crank pin bore, and one end and another end of the breakage-starting portion are positioned on both sides of a line so as to extend across the line connecting axes of the bolt holes and extending in a direction that is substantially perpendicular to the axis of the crank pin hole.

Claim 23 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein, of an intersection where the broken and split surfaces and the inside circumferential surface of the crank pin bore meet, a first portion of the intersection where the breakage-starting portion is formed extends along the breakage-starting portion, and a remaining portion of the intersection deviates from and is not coincident with an extension of the breakage-starting portion.

Claim 24 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein the large end includes a pair of shoulders and each of the shoulders of the large end includes a bolt hole extending in a direction that is substantially perpendicular to the axis of the crank pin bore, and the bolt holes are close to the crank pin bore so that a distance between the bolt holes and the inside circumferential surface is less than a distance between the bolt holes and an outside wall of the crank pin bore.

Claim 25 (new): The breaking and splitting structure of a connecting rod according to claim 24, wherein the breakage-starting portion is formed at a position that

is substantially coincident with a line connecting the axes of the bolt holes and extending in a direction that is substantially perpendicular to the axis of the crank pin hole.

Claim 26 (new): The breaking and splitting structure of a connecting rod according to claim 11, wherein one end of the breakage-starting portion is positioned at one end of the crank pin bore in the axial direction thereof.

Claim 27 (new): A method of forming a breaking and splitting structure of a connecting rod, the method comprising the steps of:

forming the connecting rod including a large end having a crank pin bore;

forming a breakage-starting portion extending in the axial direction of the crank pin bore in an inside circumferential surface of the crank pin bore such that the axial length of the breakage-starting portion is less than the axial length of the inside circumferential surface;

breaking and splitting the large end along the breakage-starting portion such that the large end is broken and split into a rod section and a cap section and such that the rod section and the cap section have broken and split surfaces; and

coupling the rod and cap sections to each other via fastening bolts such that the broken and split surfaces of the rod section and the cap section are engaged and aligned with each other.

Claim 28 (new): The method according to claim 27, further comprising the step of surface-hardening an outer surface of the large end before the step of breaking and splitting.

Claim 29 (new): The method according to claim 28, wherein the step of surface-hardening includes carburizing, hardening and tempering the outer surface of the large end.

Claim 30 (new): The method according to claim 27, further comprising the step of surface-hardening an outer surface of the connecting rod before the step of breaking and splitting.

Claim 31 (new): The method according to claim 30, wherein the step of surface-hardening includes carburizing, hardening and tempering the outer surface of the connecting rod.

Claim 32 (new): The method according to claim 27, wherein the step of forming the breakage-starting portion includes the step of forming a groove by machining a portion of the crank pin bore.

Claim 33 (new): The method according to claim 32, wherein the groove is machined so as to have a tapered configuration.

Claim 34 (new): The method according to claim 27, wherein the step of forming the breakage-starting portion includes the step of forming a plurality of bores by laser machining a portion of the crank pin bore.

Claim 35 (new): The method according to claim 27, wherein the axial length of the breakage-starting portion is substantially equal to or less than a diameter of the crank pin bore.

Claim 36 (new): The method according to claim 27, wherein the breakage-starting portion extends from one end of the crank pin bore to a location just short of a middle of the axial length of the crank pin bore.

Claim 37 (new): The method according to claim 27, wherein the breakage-starting portion extends along a middle portion of the axial length of the crank pin bore.

Claim 38 (new): The method according to claim 27, further comprising the steps of forming a pair of shoulders in the large end and forming a bolt hole in each of the shoulders, the bolt holes extending in a direction that is substantially perpendicular to the axis of the crank pin bore, and one end and another end of the breakage-starting portion are positioned on both sides of a line so as to extend across the line connecting axes of the bolt holes and extending in a direction that is substantially perpendicular to the axis of the crank pin hole.

Claim 39 (new): The method according to claim 27, wherein, of an intersection where the broken and split surfaces and the inside circumferential surface of the crank pin bore meet, a first portion of the intersection where the breakage-starting portion is formed extends along the breakage-starting portion, and a remaining portion of the intersection deviates from and is not coincident with an extension of the breakage-starting portion.

Claim 40 (new): The method according to claim 27, further comprising the steps of forming a pair of shoulders in the large end and forming a bolt hole in each of the shoulders, the bolt holes extending in a direction that is substantially perpendicular to the axis of the crank pin bore, and the bolt holes are close to the crank pin bore so that a distance between the bolt holes and the inside circumferential surface is less than a distance between the bolt holes and an outside wall of the crank pin bore.

Claim 41 (new): The method according to claim 40, wherein the breakage-starting portion is formed at a position that is substantially coincident with a line connecting the axes of the bolt holes and extending in a direction that is substantially perpendicular to the axis of the crank pin hole.